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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,704	11/10/2003	Nathan E. Stacy	2039.017800	5242
37774	7590	03/23/2005	EXAMINER	
WILLIAMS, MORGAN & AMERSON, P.C. 10333 RICHMOND, SUITE 1100 HOUSTON, TX 77042			TESKIN, FRED M	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 03/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/705,704

Applicant(s)

STACY ET AL.

Examiner

Fred M Teskin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11, 18-24, 27 and 28 is/are allowed.
- 6) ☒ Claim(s) 12-17, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                             |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>030304</u> . | 6) <input type="checkbox"/> Other: ____                                                |

Claims 1-28 are currently pending and under examination.

Claim 12 is objected to because of the following informalities: the second occurrence of "(c)" should read -(d)-. Appropriate correction is required.

Claims 12-17, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the following grounds for indefiniteness apply to the indicated claims.

(A) Claims 12 and 16 are incomplete, hence indefinite, due to lack of definition for the following variable indices: x, y and m in the "random ... block" expressions and n in the "(conjugated diene)<sub>n</sub> block" expression. It is unknown what values these variables can assume outside the ranges specified in dependent claims 13 and 14 and disclosed in the specification, and consequently what proportions of conjugated diene and monovinylarene residues may be present in the block copolymer produced by the claimed methods.

(B) Claims 25 and 26 likewise are indefinite due to lack of definition for variable "CA" of the recited structure. Appropriate correction is required.

(C) The term "low" in claims 12 and 16 is a relative term which renders the claims indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining what "low T<sub>g</sub>" is intended to encompass in terms of suitable temperatures, and thus one of ordinary skill in the art would not be reasonably apprised

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of the scope of the invention. Indeed, to the extent  $T_g$  is determined by the proportions of conjugated diene and monovinylarene residues in the random and conjugated diene blocks, such proportions are not defined in said claims, as noted above, and thus the scope of "low  $T_g$ " is not ascertainable with reasonable certainty.

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Bening et al is pertinent to block copolymers of the type  $(A-B)_nX$  where each A block is a mono alkenyl arene block, each B block is a controlled distribution copolymer block of conjugated diene and mono alkenyl arene, and X is coupling agent residue (note claim 7).

Fodor et al is pertinent to the coupling of styrene-diene<sub>1</sub>-diene<sub>2</sub> block copolymer chains with a polyfunctional coupling agent.

Lanza et al is pertinent to resinous block copolymer of the structure S1-B1-B/S-S2 where S1 and S2 are monovinyl-substituted aromatic homopolymer blocks, B is a conjugated diene homopolymer block and B/S is a conjugated diene/monovinyl-substituted aromatic random copolymer block; the blocks being further characterized by specific molecular weight ranges (note col. 2, lines 50+).

Claims 1-11, 18-24, 27 and 28 are allowable on the present record.

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The following is a statement of reasons for the indication of allowable subject matter: a monovinylarene/conjugated diene block copolymer having a composition or structure as claimed (e.g., claims 1, 18, 20, 27 and 28) is not taught nor fairly suggested in any prior art document located or identified to date.

Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/03-17-05

  
FRED TESKIN  
PRIMARY EXAMINER  
